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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/770,509

DATE: 02/06/2001

TIME: 15:23:09

Input Set : A:\seqlist.txt
 Output Set: N:\CRF3\02062001\I770509.raw

4 <110> APPLICANT: Katagiri, F.
 6 <120> TITLE OF INVENTION: OOMYCETE FTSZ-MT AS A TARGET FOR
 7 ANTIMICROBIAL-SPECIFIC BIOCIDES
 10 <130> FILE REFERENCE: NADII.018A
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/770,509
 C--> 12 <141> CURRENT FILING DATE: 2001-01-25
 12 <160> NUMBER OF SEQ ID NOS: 32
 14 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 535
 18 <212> TYPE: DNA
 19 <213> ORGANISM: Phytophthora infestans
 21 <220> FEATURE:
 22 <221> NAME/KEY: CDS
 23 <222> LOCATION: (2)...(535)
 25 <400> SEQUENCE: 1
 26 c ggc tcg caa ttg gaa ggt gtg gag ttc att gta gcc aac aca gac tgt 49
 27 Ala Ser Gln Leu Glu Gly Val Glu Phe Ile Val Ala Asn Thr Asp Cys
 28 1 5 10 15
 30 cag gct ctg gga cgc tcg ctg gcg ccg cac aag atc acg ctg ggc aaa 97
 31 Gln Ala Leu Gly Arg Ser Leu Ala Pro His Lys Ile Thr Leu Gly Lys
 32 20 25 30
 34 gat atc acc aag gga cta gga gct gga tcc aaa cct gag ctg ggt aaa 145
 35 Asp Ile Thr Lys Gly Leu Gly Ala Gly Ser Lys Pro Glu Leu Gly Lys
 36 35 40 45
 38 cgc tct gcg gaa cag cag aaa gtg gat atc caa cggt atg tta cag gac 193
 39 Arg Ser Ala Glu Gln Gln Lys Val Asp Ile Gln Arg Met Leu Gln Asp
 40 50 55 60
 42 agc aac atg ctg ttt atc acg ggc gga atg ggc ggc gga acc tgc aca 241
 43 Ser Asn Met Leu Phe Ile Thr Gly Gly Met Gly Gly Thr Cys Thr
 44 65 70 75 80
 46 gga gcc gca cct gtc gtg gcc agt gta gcc agg gag ctg ggg atc cta 289
 47 Gly Ala Ala Pro Val Val Ala Ser Val Ala Arg Glu Leu Gly Ile Leu
 48 85 90 95
 50 acg gtc gga gta gta agc aca ccg ttc cga tcc gaa gga ccc aat cgc 337
 51 Thr Val Gly Val Val Ser Thr Pro Phe Arg Ser Glu Gly Pro Asn Arg
 52 100 105 110
 54 act cgt ctg gcc aat gct gga gta aaa gaa ctg gcc aag tac gtc gac 385
 55 Thr Arg Leu Ala Asn Ala Gly Val Lys Glu Leu Ala Lys Tyr Val Asp
 56 115 120 125
 58 acc tta att gtc gtg ccc aac cag aac ttg ctg gct ttg gca gac aag 433
 59 Thr Leu Ile Val Val Pro Asn Gln Asn Leu Leu Ala Leu Ala Asp Lys
 60 130 135 140
 62 agc acg acc atg ttg gaa gcc ttc cgg tat gcc gac gac gtg ctg ctt 481
 63 Ser Thr Thr Met Leu Glu Ala Phe Arg Tyr Ala Asp Asp Val Leu Leu
 64 145 150 155 160
 66 gaa gga gtt aaa ggt gtc acg gac ttg atc gtt cgc ccg gga ctt atc 529

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67 Glu Gly Val Lys Gly Val Thr Asp Leu Ile Val Arg Pro Gly Leu Ile
68 165 170 175
70 aat ttg 535
71 Asn Leu
75 <210> SEQ ID NO: 2
76 <211> LENGTH: 178
77 <212> TYPE: PRT
78 <213> ORGANISM: Phytophthora infestans
80 <400> SEQUENCE: 2
81 Ala Ser Gln Leu Glu Gly Val Glu Phe Ile Val Ala Asn Thr Asp Cys
82 1 5 10 15
83 Gln Ala Leu Gly Arg Ser Leu Ala Pro His Lys Ile Thr Leu Gly Lys
84 20 25 30
85 Asp Ile Thr Lys Gly Leu Gly Ala Gly Ser Lys Pro Glu Leu Gly Lys
86 35 40 45
87 Arg Ser Ala Glu Gln Gln Lys Val Asp Ile Gln Arg Met Leu Gln Asp
88 50 55 60
89 Ser Asn Met Leu Phe Ile Thr Gly Met Gly Gly Gly Thr Cys Thr
90 65 70 75 80
91 Gly Ala Ala Pro Val Val Ala Ser Val Ala Arg Glu Leu Gly Ile Leu
92 85 90 95
93 Thr Val Gly Val Val Ser Thr Pro Phe Arg Ser Glu Gly Pro Asn Arg
94 100 105 110
95 Thr Arg Leu Ala Asn Ala Gly Val Lys Glu Leu Ala Lys Tyr Val Asp
96 115 120 125
97 Thr Leu Ile Val Val Pro Asn Gln Asn Leu Leu Ala Leu Ala Asp Lys
98 130 135 140
99 Ser Thr Thr Met Leu Glu Ala Phe Arg Tyr Ala Asp Asp Val Leu Leu
100 145 150 155 160
101 Glu Gly Val Lys Gly Val Thr Asp Leu Ile Val Arg Pro Gly Leu Ile
102 165 170 175
103 Asn Leu
107 <210> SEQ ID NO: 3
108 <211> LENGTH: 220
109 <212> TYPE: DNA
110 <213> ORGANISM: Phytophthora infestans
112 <220> FEATURE:
113 <221> NAME/KEY: CDS
114 <222> LOCATION: (2)...(220)
115 <223> OTHER INFORMATION: cDNA
117 <400> SEQUENCE: 3
118 c gcg cgc ggc ctg cag ggt gtg gag ttt ctt gtt tgc aac acg gat gct 49
119 Ala Arg Gly Leu Gln Gly Val Glu Phe Leu Val Cys Asn Thr Asp Ala
120 1 5 10 15
122 cag cac tta cgc acg acg ctg acg gag aac cgc gtt cag atg gct cct 97
123 Gln His Leu Arg Thr Thr Leu Thr Glu Asn Arg Val Gln Met Ala Pro
124 20 25 30
126 gaa ttg act gga gga ttg ggc tgt ggc gct aac ccc gaa gtt ggc cga 145
127 Glu Leu Thr Gly Gly Leu Gly Cys Gly Ala Asn Pro Glu Val Gly Arg

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128 35 40 45
130 gag gcg gca gag gcc gcg att gat gag att ttg gag cgc gtt cag ggt 193
131 Glu Ala Ala Glu Ala Ala Ile Asp Glu Ile Leu Glu Arg Val Gln Gly
132 50 55 60
134 gca aac atg atg ttt gtt act gcg ggt 220
135 Ala Asn Met Met Phe Val Thr Ala Gly
136 65 70
139 <210> SEQ ID NO: 4
140 <211> LENGTH: 73
141 <212> TYPE: PRT
142 <213> ORGANISM: Phytophthora infestans
144 <400> SEQUENCE: 4
145 Ala Arg Gly Leu Gln Gly Val Glu Phe Leu Val Cys Asn Thr Asp Ala
146 1 5 10 15
147 Gln His Leu Arg Thr Thr Leu Thr Glu Asn Arg Val Gln Met Ala Pro
148 20 25 30
149 Glu Leu Thr Gly Gly Leu Gly Cys Gly Ala Asn Pro Glu Val Gly Arg
150 35 40 45
151 Glu Ala Ala Glu Ala Ala Ile Asp Glu Ile Leu Glu Arg Val Gln Gly
152 50 55 60
153 Ala Asn Met Met Phe Val Thr Ala Gly
154 65 70
157 <210> SEQ ID NO: 5
158 <211> LENGTH: 388
159 <212> TYPE: DNA
160 <213> ORGANISM: Phytophthora infestans
162 <220> FEATURE:
163 <221> NAME/KEY: intron
164 <222> LOCATION: (143)...(204)
166 <221> NAME/KEY: intron
167 <222> LOCATION: (265)...(370)
169 <221> NAME/KEY: CDS
170 <222> LOCATION: (2)...(142)
172 <221> NAME/KEY: CDS
173 <222> LOCATION: (205)...(264)
175 <221> NAME/KEY: CDS
176 <222> LOCATION: (371)...(388)
178 <400> SEQUENCE: 5
179 c gcg cgc ggc ctg cag ggt gtg gag ttt ctt gtt tgc aac acg gat gct 49
180 Ala Arg Gly Leu Gln Gly Val Glu Phe Leu Val Cys Asn Thr Asp Ala
181 1 5 10 15
183 cag cac tta cgc acg acg ctg acg gag aac cgc gtt cag atg gtc cct 97
184 Gln His Leu Arg Thr Thr Leu Thr Glu Asn Arg Val Gln Met Ala Pro
185 20 25 30
187 gaa ttg act gga gga ttg ggc tgt ggc gct aac ccc gaa gtt ggg 142
188 Glu Leu Thr Gly Gly Leu Gly Cys Gly Ala Asn Pro Glu Val Gly
189 35 40 45
191 tgagtgactg cgtaaaaagcg gtatTTTTT ttcttacata ctgaccctaa ctattgatta 202
192 gc cga gag gcg gca gag gcc gcg att gat gag att ttg gag cgc gtt 249

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Input Set : A:\seqlist.txt

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193 Arg Glu Ala Ala Glu Ala Ala Ile Asp Glu Ile Leu Glu Arg Val
194 50 55 60
196 cag ggt gca aac atg gtttgtctcg gtgacattgc gtttctcaag acgttccgat 304
197 Gln Gly Ala Asn Met
198 65
200 tttagcgaat gacttggta tgacaacat atgattatta acttctgctt ttatgccct 364
201 atatacg atg ttt gtt act gcg ggt 388
202 Met Phe Val Thr Ala Gly
203 70
206 <210> SEQ ID NO: 6
207 <211> LENGTH: 20
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: PCR primer
215 <221> NAME/KEY: misc_feature
216 <222> LOCATION: (1)...(20)
217 <223> OTHER INFORMATION: n = inosine
219 <400> SEQUENCE: 6

W--> 220 aaygcngtna ayaayatgat 20
222 <210> SEQ ID NO: 7
223 <211> LENGTH: 20
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: PCR primer
231 <221> NAME/KEY: misc_feature
232 <222> LOCATION: (1)...(20)
233 <223> OTHER INFORMATION: n = inosine
235 <400> SEQUENCE: 7

W--> 236 gtnccngtnc cnccncccat 20
238 <210> SEQ ID NO: 8
239 <211> LENGTH: 20
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: PCR primer
247 <221> NAME/KEY: misc_feature
248 <222> LOCATION: (1)...(17)
249 <223> OTHER INFORMATION: n = inosine
251 <400> SEQUENCE: 8

W--> 252 gtncknacrt cngcraartc 20
254 <210> SEQ ID NO: 9
255 <211> LENGTH: 1423
256 <212> TYPE: DNA
257 <213> ORGANISM: Phytophthora infestans
259 <220> FEATURE:
260 <221> NAME/KEY: CDS
261 <222> LOCATION: (2)...(1261)

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Input Set : A:\seqlist.txt
Output Set: N:\CRF3\02062001\I770509.raw

263 <400> SEQUENCE: 9
 264 g atg gcg ata tcc cgc atg aaa gct gcg gcg atg gcg ctg cta cgt gcc 49
 265 Met Ala Ile Ser Arg Met Lys Ala Ala Met Ala Leu Leu Arg Ala
 266 1 5 10 15
 268 cgc cag acc tcc cag tcc gcc actcaa cac ctc gcc ttc tct act gaa 97
 269 Arg Gln Thr Ser Gln Ser Ala Thr Gln His Leu Ala Phe Ser Thr Glu
 270 20 25 30
 272 gcc act gat gct gca gct gcc gcg tta cgc atg ggc ttt aaa aag gct 145
 273 Ala Thr Asp Ala Ala Ala Leu Arg Met Gly Phe Lys Lys Ala
 274 35 40 45
 276 cga aaa gac gag gat ggc ggt gtg aaa gtg ggg ctg gag gca gag ccc 193
 277 Arg Lys Asp Glu Asp Gly Gly Val Lys Val Gly Leu Glu Ala Glu Pro
 278 50 55 60
 280 gat tca cca aca gat gtg agc gcc gtt tcg acg cca gta gta gag aag 241
 281 Asp Ser Pro Thr Asp Val Ser Ala Val Ser Thr Pro Val Val Glu Lys
 282 65 70 75 80
 284 aag ctc gtg ccg cca gcc atg agc tcc aca cag cca ctt tgg ctc aca 289
 285 Lys Leu Val Pro Pro Ala Met Ser Ser Thr Gln Pro Leu Trp Leu Thr
 286 85 90 95
 288 cag gac cat cct gtg aca gac ctg tcg ggc ttt gca ccg aag att gtg 337
 289 Gln Asp His Pro Val Thr Asp Leu Ser Gly Phe Ala Pro Lys Ile Val
 290 100 105 110
 292 gtg gtt ggc gtc gga gga gct gga gga aat gcg gtg aac aac atg atc 385
 293 Val Val Gly Val Gly Ala Gly Gly Asn Ala Val Asn Asn Met Ile
 294 115 120 125
 296 gcg cgc ggc ctg cag ggt gtg gag ttt ctt gtt tgc aac acg gat gct 433
 297 Ala Arg Gly Leu Gln Gly Val Glu Phe Leu Val Cys Asn Thr Asp Ala
 298 130 135 140
 300 cag cac tta cgc acg acg ctg acg gag aac cgc gtt cag atg gct cct 481
 301 Gln His Leu Arg Thr Thr Leu Thr Glu Asn Arg Val Gln Met Ala Pro
 302 145 150 155 160
 304 gaa ttg act gga gga ctg ggc tgt ggc gct aac ccc gaa gtt ggc cga 529
 305 Glu Leu Thr Gly Leu Gly Cys Gly Ala Asn Pro Glu Val Gly Arg
 306 165 170 175
 308 gag gcg gca gag gcc gcg att gat gag att ttg gag cgc gtt cag ggt 577
 309 Glu Ala Ala Glu Ala Ile Asp Glu Ile Leu Glu Arg Val Gln Gly
 310 180 185 190
 312 gca aac atg atg ttt gtt act gcg ggt atg ggt ggc gga aca ggt aca 625
 313 Ala Asn Met Met Phe Val Thr Ala Gly Met Gly Gly Thr Gly Thr
 314 195 200 205
 316 ggt gca gca ccc gtc att gct cag gct gcc tta gat gct ggt atc ctc 673
 317 Gly Ala Ala Pro Val Ile Ala Gln Ala Ala Leu Asp Ala Gly Ile Leu
 318 210 215 220
 320 acc gta gct gtc gtt act aag ccg ttc cgg ttt gag gga aac aac cgt 721
 321 Thr Val Ala Val Val Thr Lys Pro Phe Arg Phe Glu Gly Asn Asn Arg
 322 225 230 235 240
 324 gca aag ctt gcg gca caa ggc ctc gct gaa ctg aag gat agc gtc gat 769
 325 Ala Lys Leu Ala Ala Gln Gly Leu Ala Glu Leu Lys Asp Ser Val Asp
 326 245 250 255

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/770,509

DATE: 02/06/2001
TIME: 15:23:10

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\02062001\I770509.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8